

## ABSTRACT

### METHOD AND DEVICE FOR MONITORING PARTICLE CONCENTRATION IN GAS STREAM

Particle concentration is monitored in a gas stream, in particular rust particle concentration in the exhaust gas stream of an internal combustion engine. A sensor in the gas stream collects the particles that are monitored. The sensor is integrated as a capacitive element in an electromagnetic resonant circuit excited by an alternating voltage. The sensor includes a non-conducting base body and two electrodes spaced apart from each other. A characteristic value of the resonant circuit varying on the basis of the particle load of the sensor is determined as a reference value when the sensor is unloaded. The change in the characteristic value due to the particle load is determined relative to the reference value.